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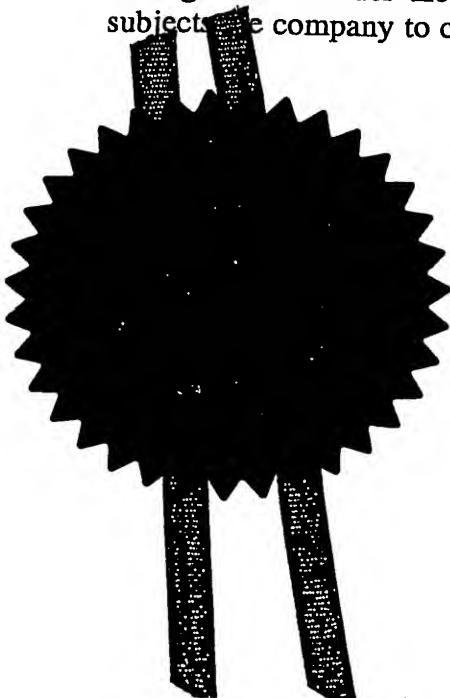
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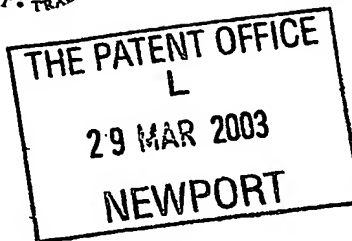


31HAR03 E796388-3 D00346
P01/7700 0-00-0307317-8

1/77

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1. Your reference

GW-G33632

2. Patent application number

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0307317.8

29 MAR 2003

3. Full name, address and postcode of the or of each applicant (underline all surnames)

Shaws Petroleum Ltd
Farnley House
Manor Road
Farnley Tyas
Huddersfield
HD4 6UL

Patents ADP number (if you know it)

If the applicant is a corporate body, give the country/state of its incorporation

England

85999779001

4. Title of the invention

Ski carriage

5. Name of your agent (if you have one)

"Address for service" in the United Kingdom to which all correspondence should be sent (including the postcode)

Bailey Walsh & Co
5 York Place
Leeds
LS1 2SD

Patents ADP number (if you know it)

224001

6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and (if you know it) the or each application number

Country

Priority application number
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Date of filing
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7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application

Number of earlier application

Date of filing
(day / month / year)

8. Is a statement of inventorship and of right to grant of a patent required in support of this request? (Answer 'Yes' if:

- a) any applicant named in part 3 is not an inventor, or
 - b) there is an inventor who is not named as an applicant, or
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Patents Form 1/77

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Description 10

Claim(s)

Abstract DL

Drawing(s) 8 + 8

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Statement of inventorship and right to grant of a patent (*Patents Form 7/77*)

Request for preliminary examination and search (*Patents Form 9/77*)

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11. I/We request the grant of a patent on the basis of this application.

Signature

Date

B. Wood

28.03.03

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G Wood
0113 243 3824

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Ski Carriage

The invention to which this application relates is a carriage device for use for the transport of skis in particular snow skis, but the assembly is also applicable to other ski type products such as snow boards, water skis, surfboards and the like.

Although the invention is now described with reference to skis, the problems associated with the same can be encountered in many other forms of sports or activities where relatively elongate objects are required to be carried to a location to allow the activity to be commenced and therefore the scope of the application should be interpreted as extending to other objects which can be utilised in conjunction with the invention as herein described.

A known problem with the activity of skiing is that on many occasions, the location at which the skis are stored when not in use is some distance away from the location, i.e. the bottom of the ski slope, at which the skiing can take place. This therefore means that the skis, ski poles and perhaps other associated apparatus, need to be carried to the bottom of the ski slope. The skis cannot be worn as, unless there is snow on the ground, the skis can be badly damaged. Furthermore, the journey to the bottom of the ski slope can involve significant distance and/or uphill sections which means that the same cannot be easily worn even if there is snow on the ground.

Conventionally, the skis are carried in a face to face relationship and the bindings of the same may be used to try and interlock the skis together so that the same can then be carried on one shoulder. The ski poles can then be grasped in the hand. At best, this can be heavy and cumbersome to the person carrying the same but at worst, and when one considers that conditions

underfoot may be treacherous due to ice and/or snow, the person is typically wearing ski boots which are difficult to walk in in snow and that the area in which the person may be carrying the skis can be busy, one will readily appreciate that significant problems can be encountered both to the person carrying the skis and there is a risk of danger to persons in the vicinity of the skis and ski poles. It is commonly the case that the skis can dislocate from one another thereby protruding to the back and side of the person and for example, if the person turns round with the skis in this position, significant problems can be encountered for themselves and others.

A further problem experienced by adults who have children is that the child's skis and ski poles can be too heavy or cumbersome for the child to carry which means that the adult is then left to try and carry their own skis and the child's skis which makes the problems experienced even worse.

The aim of the present invention is to provide a means whereby the skis and, as required, other accessories, can be transported when not attached to the user's feet in an efficient and less cumbersome manner thereby improving safety and convenience to the person with the skis and to others in their vicinity.

In a first aspect of the invention there is provided a device assembly for the carriage of skis, said assembly including reception means for the reception of the ends of first and second skis, said reception means connected to at least one wheel or roller, said wheel or roller in contact with the surface to allow the skis to be pulled or pushed along the surface via the wheel or roller.

In one embodiment and dependent upon the surface conditions the wheels or rollers may be replaced by a skid or skids. In a

further embodiment a combination of skids and wheels or rollers can be provided. In a yet further embodiment the skids or wheels or rollers can be selectively positioned for use by the user depending on the surface conditions.

In one embodiment the assembly includes a frame and typically at least part of the frame is movable between in use and storage conditions. In an alternative embodiment the skis themselves are used to form part of the structure such that no or a reduced size of frame is required.

Different embodiments of the assembly can be provided to suit particular requirements. In one embodiment the assembly has the ability to receive a plurality of pairs of skis and/or ski poles such that one person can transport skis for other persons, such as a child, as well as their own. In a variation on this embodiment, the additional skis may not be received by the assembly but are instead connected by straps or other fixing means to the first pair of skis which are received by the assembly. For example, a child's skis, which are smaller in size can be attached to an adult pair of skis held in the assembly.

In one embodiment, the assembly is movable from an in-use position in which the wheels or rollers are spaced apart and held in a formation with respect to the location of the skis, and a storage position in which the wheels or rollers can be moved together and/or collapsed or reduced in size to form a storage pack for carry or storage when not in use. In one embodiment the assembly effectively folds into itself to form the storage pack and may in one embodiment part of the assembly is also utilised to form the outer housing of the storage pack.

In one embodiment, the storage pack is provided to be worn on the person, most preferably, as part of a belt with the pack being

positioned at the stomach of the person thereby minimising the impact of the pack on the person's activities and also reducing the possibility of injury being caused by the pack when carried.

In one embodiment, the skis are pulled or pushed by the person gripping a portion of the skis at a position spaced from the ends of the skis located with the wheels or rollers. In a further embodiment, one or a number of straps are provided said strap or straps having the function of keeping the skis together along the length thereof and also at least one of the straps can be provided with a handle or gripping portion which allows the user to grip the same to push or pull the skis. In one embodiment an elasticised strap is provided which can be extended to engage with and around the ski bindings to locate the skis together and also locate the skis with respect to the device assembly. In addition or alternatively, the strap or straps can be provided to be retractable and if required a retracting mechanism mounted on the frame.

In a further embodiment, the assembly includes a shroud, said shroud provided to receive the entire length of the skis therein such that when the skis are positioned therein, the shroud can be closed and the wheels or rollers provided as part of the shroud, or provided separately but attached to the ski ends, and used to move the skis along the surface. This embodiment has the additional benefit in that the shroud can be used as a ski bag thereby allowing the same to be used when transporting skis in aircraft, cars, trains and the like.

In one embodiment, the wheels can be mounted on an axle which is collapsible so as to allow the same to be reduced in size for storage purposes. Alternatively the wheels or rollers can be mounted independently on axles connected to a frame or housing, and the housing is movable to a collapsed storage

position. The wheels themselves can also be deformable to allow the same to be reduced in size for storage purposes.

In one embodiment the wheels or rollers are movable between storage and in use conditions and as they are moved to the in-use conditions a clamping arm is moved between a released position and a clamping position in which the skis are located and clamped in position in the device assembly.

In a preferred embodiment, the assembly includes location means for the reception of ski poles. The reception means are typically provided to allow the ski poles to be held in location with the skis and in parallel therewith thereby providing further transport advantage without unduly affecting the size of the assembly.

The present invention therefore provides significant advantage to a person as they are no longer required to carry skis and ski poles for a distance while they are walking. Firstly, the skis are held together, and preferably in conjunction with the ski poles, to form one unit rather than the conventional means whereby the skis can come apart, the ski poles are to be carried separately, and so on. Secondly, as the skis and ski poles can be dealt with as one unit, the provision of the wheels or rollers allows the same to be simply pushed or pulled along the surface, as a person walks, by the person either gripping the skis or ski poles directly or gripping a handle or gripping a portion which is provided as part of a strap to allow the skis to be moved along the surface via the wheels or rollers provided. Furthermore, when one considers that the skis and poles, in addition to being bulky, unwieldy and potentially of danger to others, are also heavy, particularly for children, and furthermore that the person is usually wearing ski boots which can be difficult to walk in, it

will be appreciated that the present invention, by removing all of these problems, is of considerable benefit.

A specific embodiment of the invention is now described with reference to the accompanying drawings, wherein:-

Figure 1 illustrates an assembly according to a first embodiment of the invention;

Figures 2a -e illustrate an assembly in accordance with a second embodiment of the invention;

Figure 3 illustrates a further embodiment of the invention; and

Figures 4a-d illustrate a fourth embodiment of the invention.

Referring firstly to Figures 1a-d, there is illustrated an assembly 2 in accordance with the invention in a first embodiment. The assembly comprises first and second wheels 4, which are shown in a position in use and located on a surface such as a pavement, road or the like. The wheels are provided in contact with a location portion 6, which can include an axle 8 which passes between the wheels 2 or, alternatively, each wheel can be separately mounted for rotation with regard to the location portion. The location portion 6, in this embodiment, comprises a pouch or wallet which is dimensioned to receive, as shown, the ends of respective skis. The location portion therefore firstly locates the ends of the skis in relation with the wheels and, furthermore, keeps the ski ends in the face to face relationship as shown. Also provided in the location means, although not shown, are holders for the reception of the ends of ski poles. In addition to the location means, location straps 26 are provided to secure the skis in position with each other and also with respect to the assembly for transport. The assembly also

includes a grip portion 27 with which the skis and hence assembly can be gripped to move the same along the surface. Further securing means can be provided along the length of the skis to maintain the skis and ski poles in a face to face relationship.

Figures 2a to b illustrate a further embodiment of the invention where, in this case, a slightly different arrangement of components is provided but the same reference numerals are used to describe the same components. In this case the skis 12,14 are shown in Figure 2a in the position for carriage. The ends 15,16 are located in the reception means 6 and in this case a strap 30, typically elasticised is provided to be extended once the skis are in position, by the user, to locate around the bindings 32 of the skis. This strap serves to locate the skis together and also locate the skis in position with regard to the assembly. The strap can be provided with the grip 27 connected thereto so as to allow gripping of the assembly and also secure the strap in connection with the skis.

Figure 2b illustrates how the wheels 4 can be moved in this embodiment from a storage to in use position. In the first step, the wheels 4 are pulled from a clamp housing from position 1 to position 2. The wheels are then pulled over the clamp 33 to the position 3 and in turn moved to position 4 which secures the clamp 33 which is also moving, to the skis. With the wheels in position the strap 32 can be moved to the position shown in Figure 2a. Figures 2c-e illustrate how the frame of the assembly, can be moved from the storage position shown in Figure 2c to the in use position in Figure 2e. In the first instance the upper members 35 are folded outwardly from the base member 37 at the reception location 6, by movement about pivot point 39. The upper members can then be extended telescopically as

shown in Figure 2e to the extended in use position with the clamping member 33 also positioned as shown in Figure 2e.

Figure 3 illustrates a yet further embodiment of the invention and in this case, the wheels and use of the assembly is the same as with the previous two embodiments but the skis are located in a reception means 6 of a different configuration. Although not shown a shroud can be attached to this or any of the embodiments which acts to fully enclose the length of the skis but still allow the skis to be pulled or pushed along a surface in the same manner as previously described. This embodiment has a further function in that the shroud can be used as a ski bag thereby allowing the skis to be transported within the shroud over relatively short distances for which the current invention is of use and also for transport over longer distances by plane, train or car and therefore overcomes the need for a person to have both the invention of the current application and also a ski bag.

Figures 4a-d illustrate a further embodiment of the invention in which the frame of the device is illustrated in one embodiment. Figures 4a and b illustrate the frame in an extended in use position and Figures 4c and d illustrate the frame in a collapsed storage position. The same reference numerals as previously are used to describe the various components and it will be seen that to move the frame from the in use position, the upper portion 50 which is held in an extended position as shown for use, is telescopically moved downwardly with respect to the portion 52 to bring the same to the position shown in Figures 4c and d. Preferably a number of portions are provided to be telescopically moved so as to allow the storage position of the device to be as small as possible. Cross members 54 can be provided at spaced intervals to add rigidity to the assembly. In this position, the wheels 4 which are each mounted on their own

axle 56, can be moved from the in use position shown in Figures 4a and b, to the storage position of Figure 4d. This is achieved by the rotation about respective pivot points provided on any of the axle; where the axle meets the wheel or member; between the member 52 and the cross member 54; or between the portion 58 on which the wheel axle is mounted and the remainder of the portion 52. In any case the wheels are moved through 90 degrees to take the side by side storage position shown in Figure 4d, thereby greatly reducing the dimensions of the device when in the storage position.

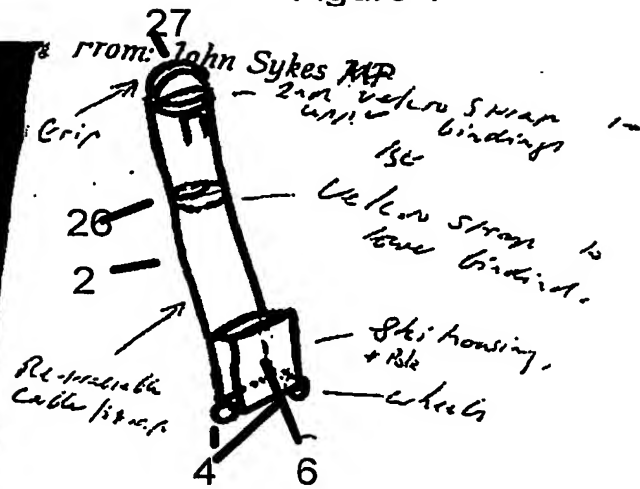
In each case, there is a need for the assembly to be easily stored both for packaging purposes but more importantly for carrying when the person is skiing, having transported their skis using the assembly, to a ski slope.

In each case, the assembly is collapsible to a storage condition typically by dislocation of any axle between the wheels and the relative folding inwardly of the wheels, and the use, as far as possible, of flexible materials to form the various components of the assembly. As such, the assembly is preferably moved to a storage condition in which the same forms a storage pack of a size and dimension which can be placed on the persons body, placed in an item of clothing, placed in an area for storage or worn by the person when skiing without risk of either undue weight being carried by the skier or injury to the skier should they fall. The use of the flexible material allows a degree of padding to be provided to the pack so formed but also ensures that the weight of the pack is relatively light.

Yet further, it is preferred that the storage pack is provided in a form to allow the same to be worn, typically by providing the pack of a flexible material in conjunction with a belt thereby allowing the pack to be worn around the waist with the pack

itself being located at the persons stomach area. It is believed that this will minimise the inconvenience to the wearer and also minimise the risk of injury to the wearer.

Figure 1



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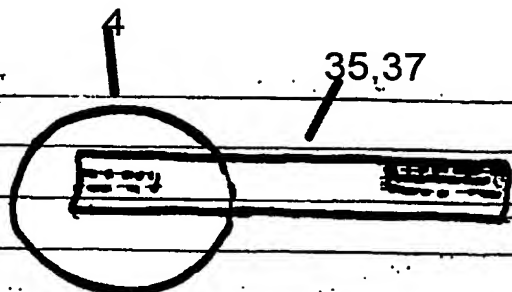


Figure 2a

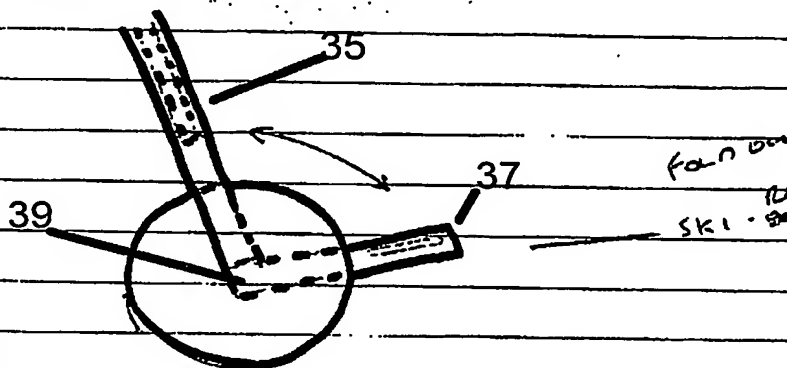


Figure 2b

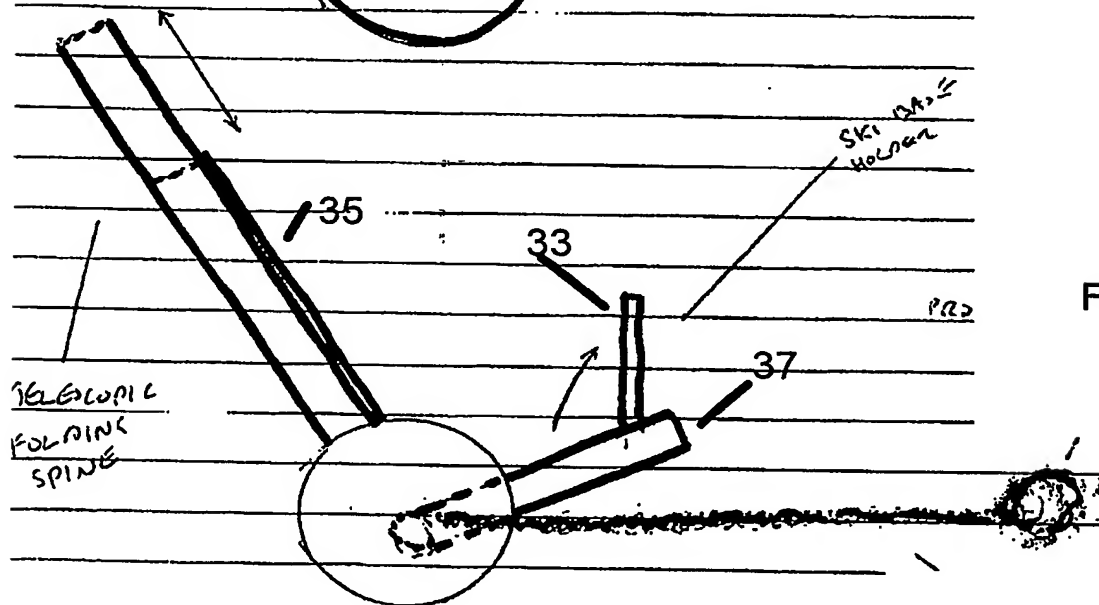


Figure 2c

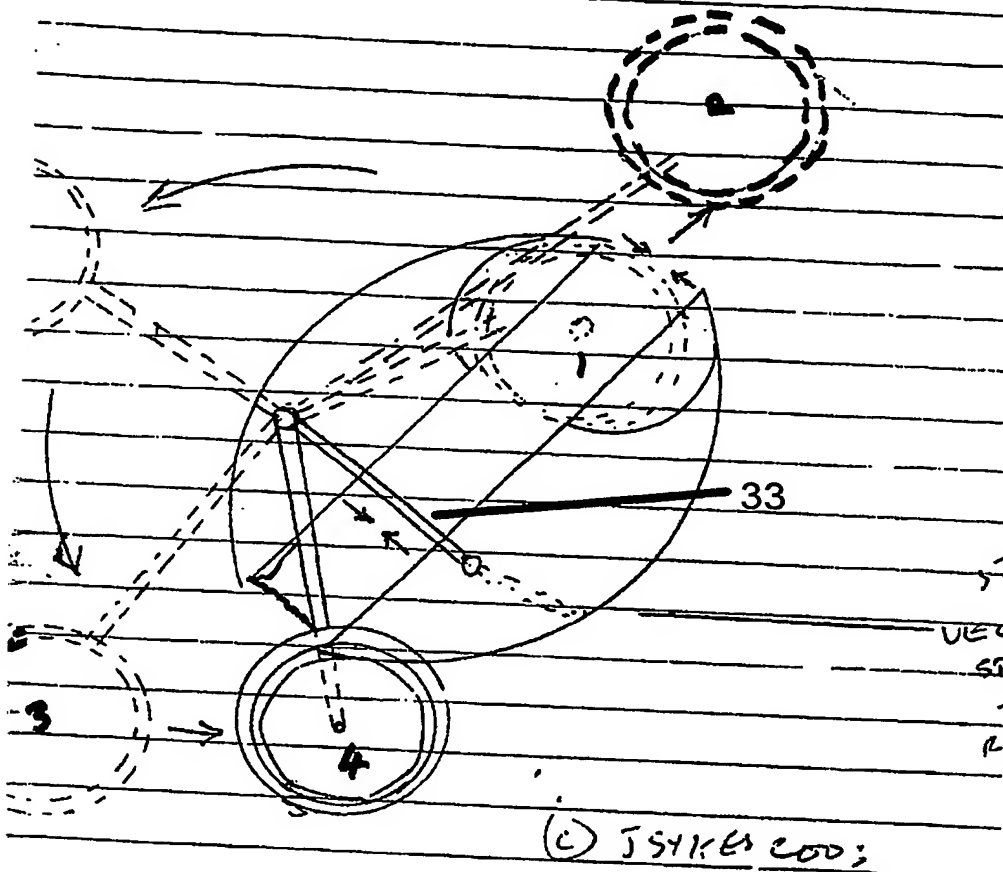


Figure 2d

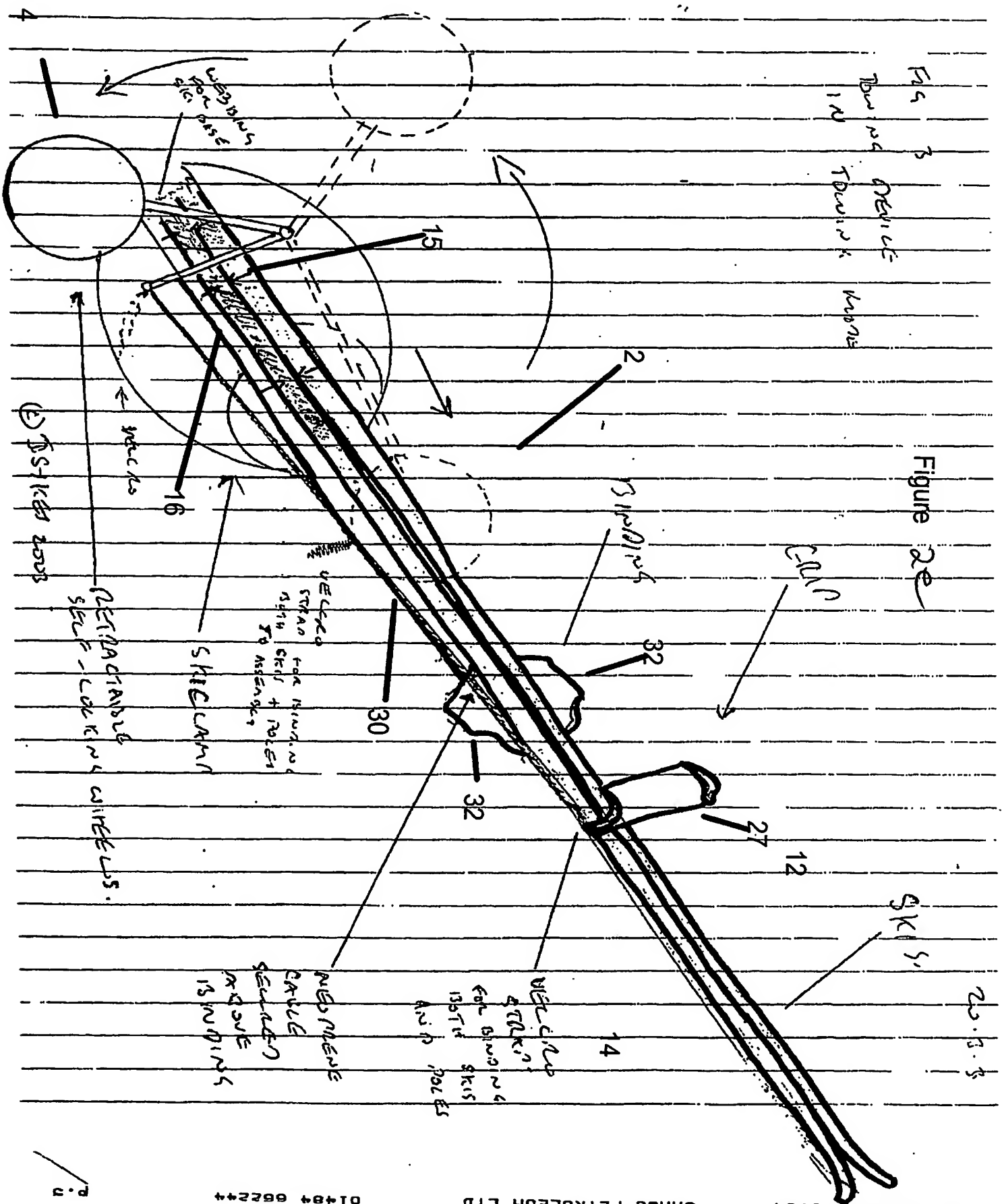
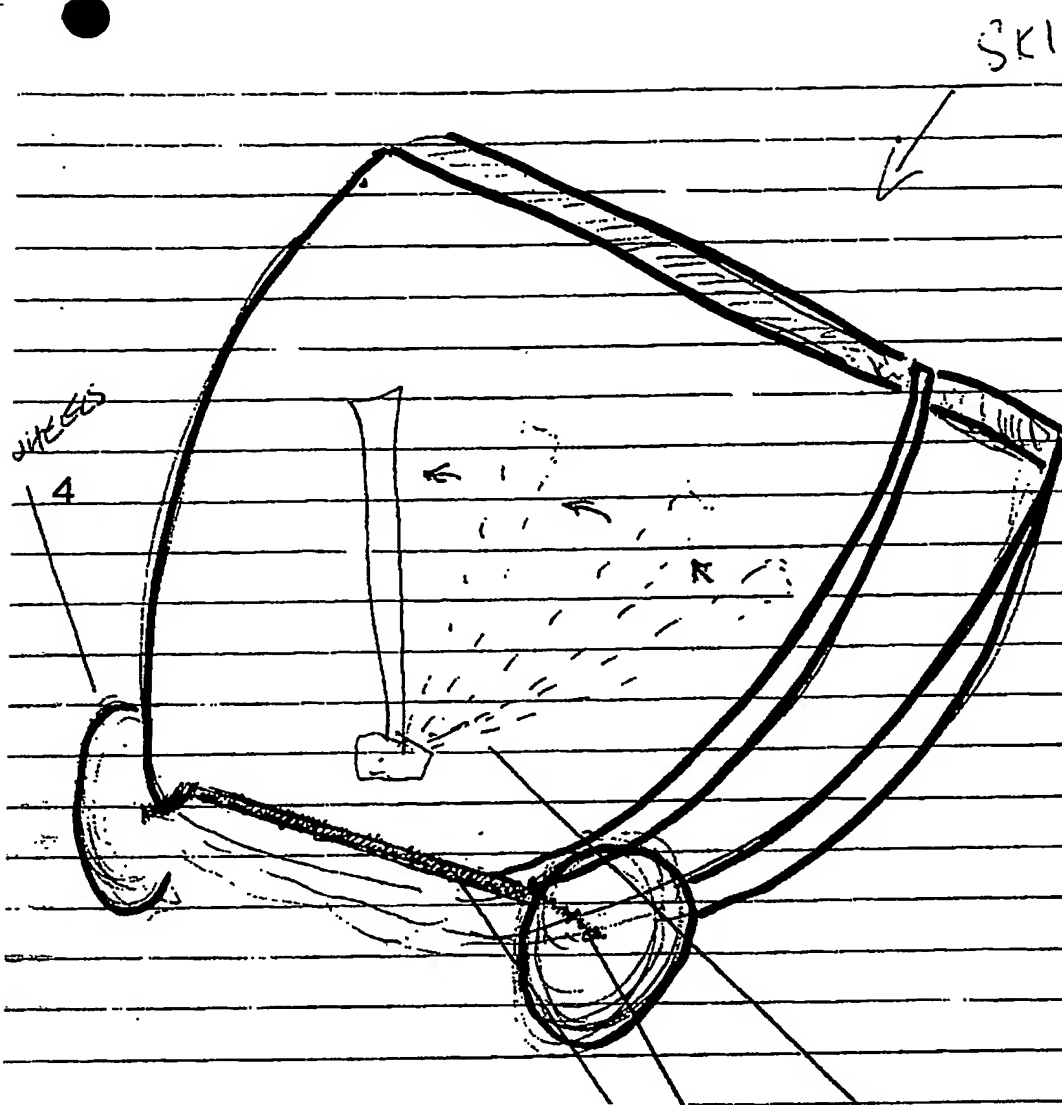


Figure 2e

Fig 3
Down and
Towing
in
Towing



4 6
Figure 3

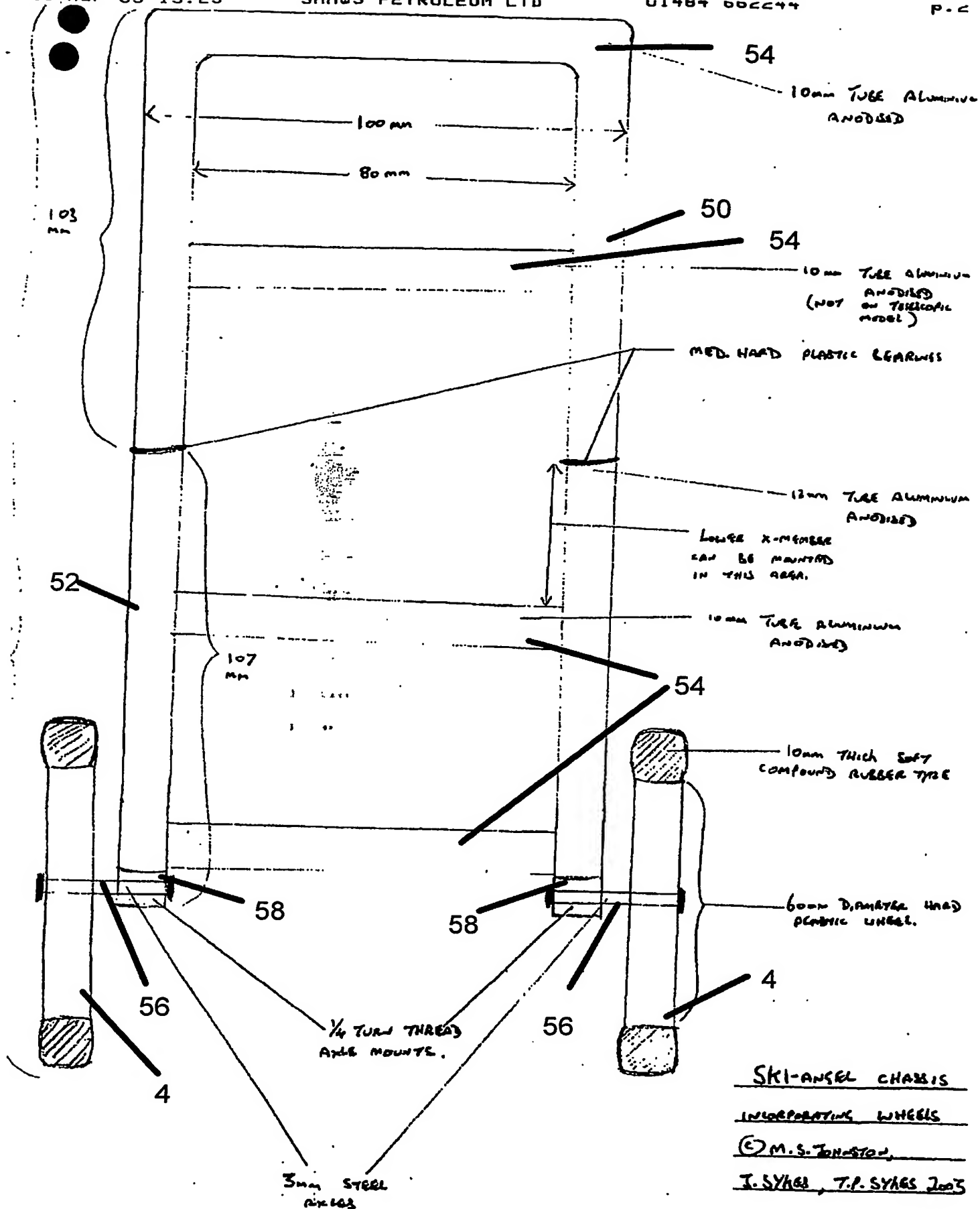
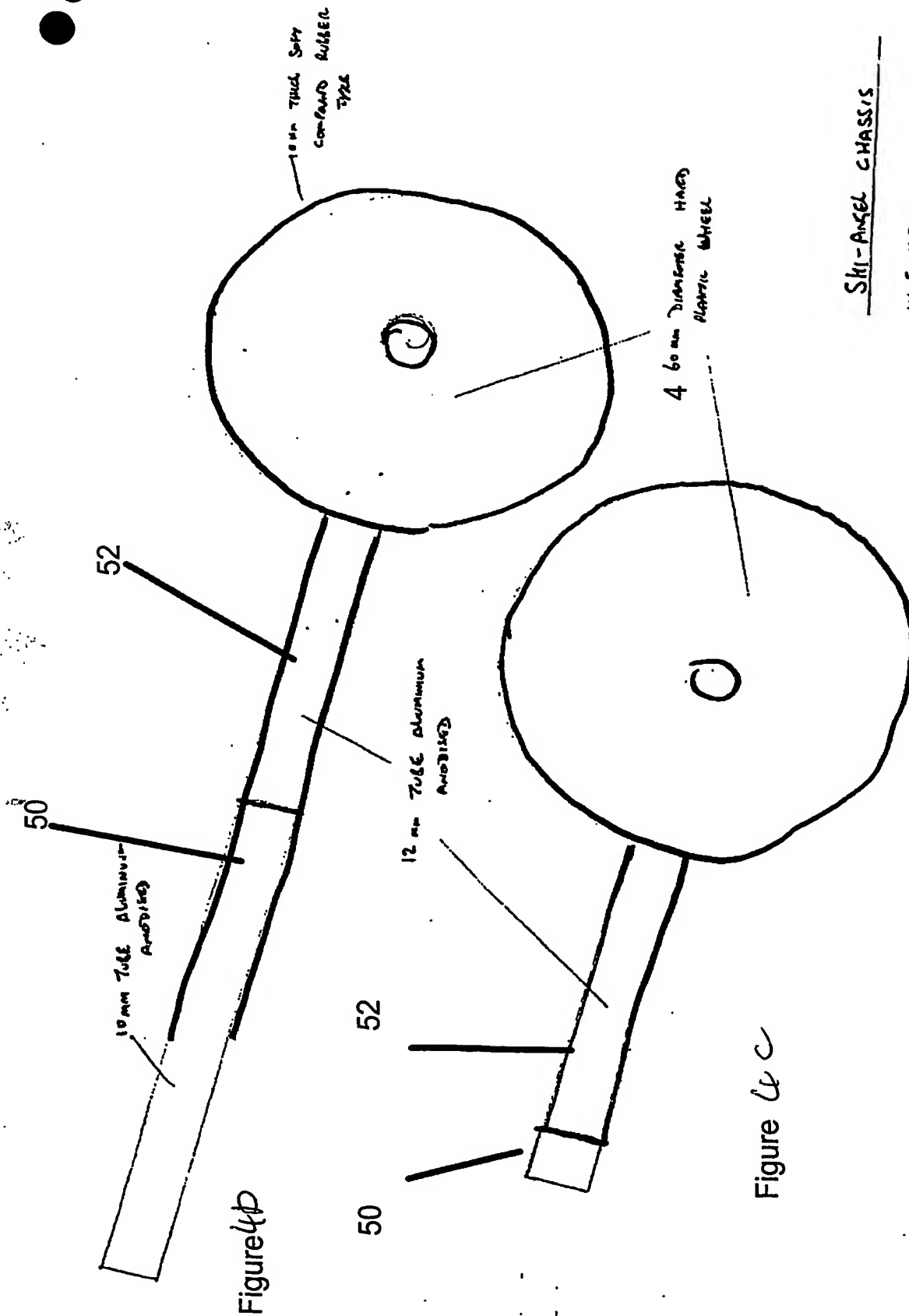


Figure 4a



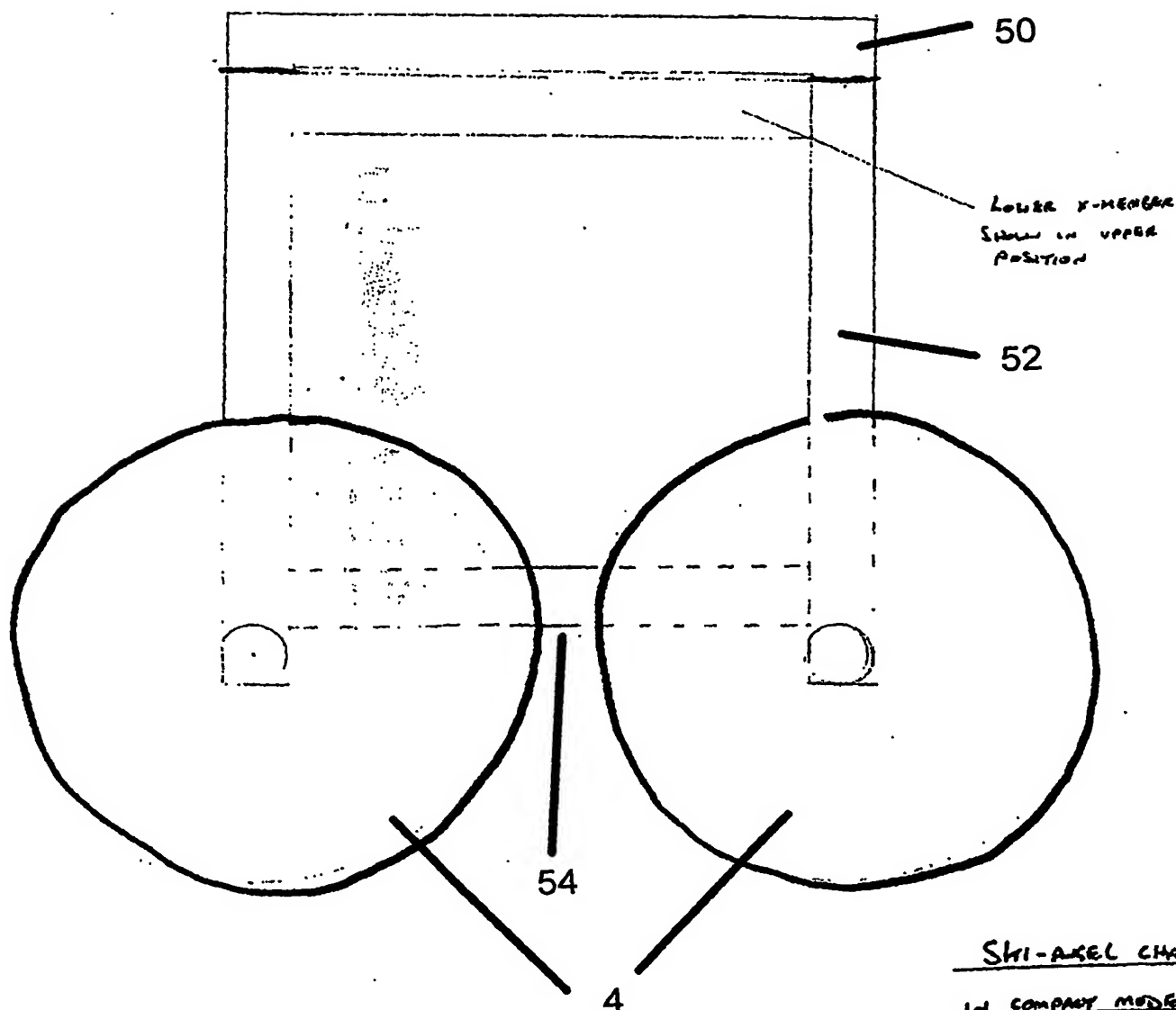
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SHAW'S PETROLEUM LTD

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Figure 4d



SKI-AXLE CHASSIS

IN COMPACT MODE.

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